

WE CLAIM:

Claims 1-14 (Canceled).

15(New). A method for treating a mammalian subject comprising the steps of:

- (a) administering to said subject having excess gastric acid, an agent selected from the group consisting of a histamine receptor blocker and a proton pump inhibitor; and
- (b) administering to said subject an immunogenic composition comprising a G17 peptide of SEQ ID NO: 1 or fragment thereof.

16(New). The method according to claim 15, wherein said method inhibits agent-induced side effects.

17(New). The method according to claim 16, wherein said side effect is hypergastrinemia.

18(New). The method according to claim 15, wherein the serum gastrin levels of said subject are reduced or maintained at a normal level.

19(New). The method according to claim 18, wherein the serum gastrin levels of said subject are reduced or maintained at less than 240 pg/mL.

20(New). The method according to claim 18, wherein the serum gastrin levels of said subject are reduced or maintained at less than 40 pg/mL.

21(New). The method according to claim 18, wherein said gastric acid production is inhibited.

22(New). The method according to claim 16, wherein said side effect is pernicious anemia, a gastric tumor, or a gastric cancer.

23(New). The method according to claim 16, wherein said side effect is a cancer selected from the group consisting of colon cancer, stomach cancer, pancreatic cancer, esophageal cancer, and liver cancer.

24(New). The method according to claim 16, wherein said administration occurs prior to the development of said side effect.

25(New). The method according to claim 15, wherein said subject has hypergastrinemia.

26(New). The method according to claim 15, wherein said subject has one or more of pernicious anemia, a gastric tumor, colon cancer, stomach cancer, pancreatic cancer, esophageal cancer, or liver cancer.

27(New). The method according to claim 15, wherein said immunogenic composition comprises said G17 peptide conjugated to an immunogenic carrier and a pharmaceutically acceptable carrier.

28(New). The method according to claim 15, wherein said G17 peptide fragment is linked by an amino acid spacer to an immunogenic carrier.

29(New). The method according to claim 28, wherein said carrier is selected from the group consisting of diphtheria toxoid, tetanus toxoid, and keylimpet hemocyanin.

30(New). The method according to claim 15, wherein said blocker is selected from the group consisting of ranitidine, cimetidine, fomatidine, and nizatidine.

31(New). The method according to claim 15, wherein said inhibitor is selected from the group consisting of omeprazole, lansoprazole, and patoprazole.

32(New). The method according to claim 15, wherein said subject is administered said immunogenic composition before said agent.

33(New). The method according to claim 15, wherein said subject is administered said agent before said immunogenic composition.

34(New). A method for treating a mammalian subject comprising the steps of:

(a) administering to said subject having excess gastric acid, an agent selected from the group consisting of a histamine receptor blocker and a proton pump inhibitor; and

(b) administering to said subject an immunogenic composition comprising anti-gastrin antibodies.

35(New). The method according to claim 34, wherein said antibodies bind to a G17 peptide of SEQ ID NO: 1 or fragment thereof.

36(New). The method according to claim 34, wherein said antibodies bind to heptadecagastrin G17.

37(New). The method according to claim 34, wherein said antibodies are purified, monoclonal, or humanized.

38(New). The method according to claim 34, wherein said method inhibits agent-induced side effects.

39(New). The method according to claim 38, wherein said side effect is hypergastrinemia.

40(New). The method according to claim 35, wherein the serum gastrin levels of said subject are reduced or maintained at a normal level.

41(New). The method according to claim 40, wherein the serum gastrin levels of said subject are reduced or maintained at less than 240 pg/mL.

42(New). The method according to claim 40, wherein the serum gastrin levels of said subject are reduced or maintained at less than 40 pg/mL.

43(New). The method according to claim 40, wherein said gastric acid production is inhibited.

44(New). The method according to claim 38, wherein said side effect is pernicious anemia, a gastric tumor, or a gastric cancer.

45(New). The method according to claim 38, wherein said side effect is a cancer selected from the group consisting of colon cancer, stomach cancer, pancreatic cancer, esophagael cancer, and liver cancer.

46(New). The method according to claim 38, wherein said administration occurs prior to the development of said side effect.

47(New). The method according to claim 34, wherein said subject has hypergastrinemia.

48(New). The method according to claim 34, wherein said subject has one or more of pernicious anemia, a gastric tumor, colon cancer, stomach cancer, pancreatic cancer, esophagael cancer, or liver cancer.

49(New). The method according to claim 35, wherein said immogenic composition comprises said G17 peptide conjugated to an immunogenic carrier and a pharmaceutically acceptable carrier.

50(New). The method according to claim 35, wherein said G17 peptide fragment is linked by an amino acid spacer to an immunogenic carrier.

51(New). The method according to claim 50, wherein said carrier is selected from the group consisting of diphtheria toxoid, tetanus toxoid, and keylimpet hemocyanin.

52(New). The method according to claim 34, wherein said blocker is selected from the group consisting of ranitidine, cimetidine, fomatidine, and nizatidine.

53(New). The method according to claim 34, wherein said inhibitor is selected from the group consisting of omeprazole, lansoprazole, and patoprazole.

54(New). The method according to claim 34, wherein said subject is administered said immunogenic composition before said agent.

55(New). The method according to claim 34, wherein said subject is administered said agent before said immunogenic composition.

56(New). A combination for use in treating a mammalian subject comprising:

(a) an agent selected from the group consisting of a histamine receptor blocker and a proton pump inhibitor; and

(b) an immunogenic composition comprising a G17 peptide of SEQ ID NO: 1 or fragment thereof.